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JOSEPH D. TRIPOLI
THOMSON LICENSING INC.
TWO INDEPENDENCE WAY
SUITE 200
PRINCETON, NJ 08540

EXAMINER

DANG, KHANH

ART UNIT

PAPER NUMBER

2111

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,655

Applicant(s)

LIRON, JOHN E.

Examiner

Khanh Dang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-11 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-11 and 13 is/are allowed.
- 6) ☒ Claim(s) 1-5, and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ngo et al. in view of Bauer.

With regard to claims 1, 14, and 15, Ngo et al. discloses a circuit to route signals (shown generally at Figs. 1 and 4), comprising: a plurality of input pins (provided by interfaces 106/306) to receive input signals; a plurality of output pins (provided by interfaces 108/308) to transmit output signals; a plurality of connectors (of devices 1-N /links 112) each wired to exactly one of the plurality of input pins (provided by interfaces 106/306) and the plurality of output pins (provided by interfaces 108/308); and a switch matrix (102/202) for transmitting signals from at least one of said input pins to at least one of said output pin. It is noted here that this crosspoint switching circuit having fixed architecture is also disclosed as prior art, under background of invention, in the originally filed specification). With regard to claim 2, it is clear from at least the drawings in Ngo et al. that the circuit is to be housed in a single frame. With regard to claim 3, it is clear that the circuit of Ngo et al. is capable of receiving and transmitting video signals (see column 1, lines 38-45). With regard to claim 4, it is clear that the circuit of Ngo et al. is capable of receiving and transmitting audio signals (see column 1, lines 38-45).

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With regard to claim 5, it is clear that the circuit of Ngo et al. is capable of receiving and transmitting data signals (see column 1, lines 38-45). With regard 7, it is clear that in Ngo et al., the circuit has output pins (provided by interfaces 108/308) that can be connected to more than one connector (of devices 1-N /links 112).

Ngo et al. does not disclose the use of a plurality of switches each having three poles so that one input pin can be connected to a first pole, one output pin can be connected to a second pole, and one connector can be connected to a common pole.

Baurer discloses a switch matrix using switchable input/outputs. Specifically, Baurer discloses a switch matrix encoding system providing lines which function as either input or lines output lines for the purpose reducing pin counts and thus, reducing cost (see at least column 1, line 45 to column 2, line 2). In order to achieve this end result, Bauer employs a plurality of switches each having one common pole and two different poles designated for the switchable input/output. See at least Figs. 3-5 and description thereof.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide switching circuit of Ngo et al. with a plurality of input/output switches, as taught by Bauer, for the purpose reducing pin counts and thus, reducing cost (see at least column 1, line 45 to column 2, line 2).

Response to Arguments

Applicants' arguments filed 11/05/2004 have been fully considered but they are not persuasive.

At the outset, Applicants are reminded that claims subject to examination will be given their broadest reasonable interpretation consistent with the specification. *In re Morris*, 127 F.3d 1048, 1054-55 (Fed. Cir. 1997). In fact, the "examiner has the duty of police claim language by giving it the broadest reasonable interpretation." *Springs Window Fashions LP v. Novo Industries, L.P.*, 65 USPQ2d 1862, 1830, (Fed. Cir. 2003). Applicants are also reminded that claimed subject matter not the specification, is the measure of the invention. Disclosure contained in the specification cannot be read into the claims for the purpose of avoiding the prior art. *In re Sporck*, 55 CCPA 743, 386 F.2d, 155 USPQ 687 (1986).

With this in mind, the discussion will focus on how the terms and relationships thereof in the claims are met by the references. Response to any limitations that are not in the claims or any arguments that are irrelevant and/or do not relate to any specific claim language will not be warranted.

With regard to claim 1, Applicants argue that "[t]he switch matrix 102/202 of Ngo et al. does not disclose or suggest the use of a switch where the third pole (or connection node) can be used as both an input or an output point of the circuit. The switch matrix of Ngo et al. simply operates to connect an input to any one of the outputs and cannot change the number of inputs or output points of connection to the circuit. Ngo et al. neither describes nor suggests the use of a three pole switch as claimed in claim 1." Applicants further argue that "Bauer discloses a switch matrix encoding interface. Bauer teaches a switch matrix encoding system that provides lines capable of

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functioning as inputs and outputs, in order to strobe the switch matrix or admit a signal. However, the disclosure of Bauer specifically teaches the use of a single pole, single throw switch with each key (col. 1, lines 67-68). As such, the combination of Ngo et al. with Bauer fails to disclose or suggest, and actually teaches away from, the multi-pole switch is feature of applicant's claimed invention." In response to Applicants' argument, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In any event, it is clear that each switch shown in Fig. 4 of Bauer comprises a common pole and two different poles designated for the switchable input/output.

With regard to claim 14, Applicants argue that "claim 14 recites, inter alia, a switching apparatus that is connected to an input pin and an output pin such that the third pole is a common pole that, depending on the position of the switching apparatus, causes the third pole to be an input or an output to the circuit. As discussed above, neither Ngo et al. nor Bauer taken singly or in combination disclose or suggest this feature of applicant's claimed invention." In response to Applicants' argument, it is first noted that the language "the third pole is a common pole that, depending on the position of the switching apparatus, causes the third pole to be an input or an output to the circuit" is not in claim 14. As discussed above, each switch shown in Fig. 4 of Bauer comprises a common pole and two different poles designated for the switchable input/output.

With regard to claim 15, Applicants argue that "claim 15 recites, inter alia, a cross point matrix adapted to connect one of said input pins to one of said output pins, and at least one switchable connector connected to one of said input pins and output pins via a switch. The matrix 102/202 of Ngo et al. does not function to allow a connection point between an input and output (i.e., the at least one switchable connector of applicant's claimed invention) of the circuit. As discussed above, Bauer teaches away from this concept of applicant's claimed invention. Thus, the combination of the teachings of Ngo et al. with Bauer fails to disclose or suggest the claimed subject matter of applicant's claimed invention in independent claim 15." In response to Applicants' argument, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

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USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). As discussed above, Ngo et al. discloses a circuit to route signals (shown generally at Figs. 1 and 4), comprising: a plurality of input pins (provided by interfaces 106/306) to receive input signals; a plurality of output pins (provided by interfaces 108/308) to transmit output signals; a plurality of connectors (of devices 1-N /links 112) each wired to exactly one of the plurality of input pins (provided by interfaces 106/306) and the plurality of output pins (provided by interfaces 108/308); and a switch matrix (102/202) for transmitting signals from at least one of said input pins to at least one of said output pin. It is noted here that this crosspoint switching circuit having fixed architecture is also disclosed as prior art, under background of invention, in the originally filed specification). In Bauer , each switch shown in Fig. 4 comprises a common pole and two different poles designated for the switchable input/output (see drawings above.

Allowable Subject Matter

Claims 8-11 and 13 are allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Khanh Dang at telephone number 703-308-0211.

A handwritten signature in black ink, appearing to read 'Khanh Dang', with a stylized flourish at the end.

Khanh Dang
Primary Examiner